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09/835,237

04/13/2001

Robert Van Kommer

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06/22/2004

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EXAMINER

BRANT, DMITRY

ART UNIT

PAPER NUMBER

2655

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49

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/835,237

Applicant(s)

KOMMER, ROBERT VAN

Examiner

Dmitry Brant

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 4/13/2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-51 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>3</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-4, 6-7, 9-15, 18, 23-24, 29, 30-33, 35-39, 42, 47, 50 and 51 (30-33, 35-39, 42, 47, 50), are rejected under 35 U.S.C. 102(e) as being anticipated by Uppaluru (6,400,806)

The table below summarizes the limitations of this application and corresponding limitations disclosed by Uppaluru.

| Claim# | Limitations | Uppaluru |
|--------|--|--|
| 1,30 | <p>Voice portal hosting system, intended to be connected to a <u>first voice telecommunication network</u> in order for a plurality of users in said network to establish a connection with said system using a voice equipment,</p> <p>said system comprising a memory in which a plurality of <u>interactive voice response applications have been independently uploaded through a second telecommunication network</u> by a plurality of independent value-added service providers,</p> <p>wherein at least a plurality of said interactive voice response applications uses a <u>common speech recognition</u> module run on said system.</p> | <p>Voice web gateway (elem. 105, FIG. 1) connected to telephone network (elems. 111, 109, FIG. 1)</p> <p>Voice web pages (interactive voice response application), (elem. 103, FIG. 1) which inherently are stored in the memory of voice web browser (105, FIG. 1) are uploaded through the second network (Internet - elem. 101, FIG. 1) by other web sites (elem. 102, FIG. 1)</p> <p>System performs speech recognition (Col. 3, lines 42-45) through voice telecommunication interface (elem.</p> |

| | | |
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| | | 114, FIG. 1) |
| 2, 31 | The voice portal hosting system, wherein said common speech recognition module comprises a <u>common user profile database</u> . | User profile database (elem. 216, FIG. C) |
| 3,32 | The voice portal hosting system, wherein said common user profile database includes <u>user preferences</u> . | Attributes and Preferences are stored for each user's profile (elem. 308, FIG. 3 and Col. 2, lines 47-57) |
| 4,33 | The voice portal hosting system of claim 3, wherein said user preferences include a <u>delivery address</u> for goods and/or services ordered with said value-added service providers. | Preferences include user's address (Col. 2, line 50) |
| 6,35 | The voice portal hosting system, wherein said common speech recognition module uses <u>user-specific speech models</u> . | Speech training profiles are speaker-dependent (Col. 2, lines 60-65) |
| 7,36 | The voice portal hosting system, comprising means for <u>adapting said common speech models</u> associated to a user during each dialogue between said user and each of said interactive voice response applications. | Speech profile page (307, FIG. 3) allows user to train the system (FIG. 4 and Col. 13, lines 10-15) for each service. Therefore, the models are adopted to appropriate context (Col. 17, lines 39-41). |
| 9 | The voice portal hosting system of claim 1, wherein said common speech recognition module uses Hidden Markov Models, and further comprising a Hidden Markov Models adaptation module for adapting said models to said user. | Use of HMM for model adaptation (Col. 17, lines 24-26) |
| 10 | The voice portal hosting system of claim 9, wherein said Hidden Markov Models adaptation module allows for an incremental adaptation of said models. | Inherently, HMMs (Col. 17, lines 24-26) can provide only incremental adaptation through continuous re-training. |
| 11,37 | The voice portal hosting system, wherein said common speech recognition module uses user-specific language models. | Speech recognition is user-specific (Col. 17, lines 16-17). Inherently, speech models are also user-specific. |
| 12,38 | The voice portal hosting system, comprising means for adapting said common language models associated to a user during each dialogue between said user and each of said interactive voice response applications. | Speech profile page (307, FIG. 3) allows user to train the system (FIG. 4 and Col. 13, lines 10-15) for each service. Therefore, the models are adopted to appropriate context (Col. 17, lines 39-41). |
| 13 | The voice portal hosting system of claim 1, wherein said common speech recognition module uses selections previously made by said users. | Users are able to store their specific training values in training pages which the system then uses for speech recognition (Col. 17, lines |

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| | | 52-55) |
| 14 | The voice portal hosting system of claim 1, wherein said selections previously made by said users are stored in said voice portal hosting system for improving the arborescence of the menu. | The trainings are stored as web-pages viewable to the user (Col. 17, lines 47-50). Therefore, they will inherently be presented in some menu-like fashion to the user. (for example, Col. 17, lines 55-63) |
| 15, 39 | The voice portal hosting system, wherein at least a plurality of said interactive voice response applications use a common <u>user identification</u> module run on said system. | The system performs user-authentication (elem. 306, FIG. 3 and Col. 15, lines 41-47) |
| 18, 42 | The voice portal hosting system, wherein said user identification module uses a voice-based user identification module. | Use of voice-authentication signature (Col. 16, lines 29-32 and elem. 611, FIG. 6) |
| 23, 47 | The voice portal hosting system, wherein at least a plurality of said interactive voice response applications use a user authentication module based on an electronic signature and/or on biometric parameters of said users. | Use of voice-authentication signature (Col. 16, lines 29-32 and elem. 611, FIG. 6) |
| 24 | The voice portal hosting system of claim 1, wherein said second telecommunication network is a TCP/IP network. | Inherently, Internet (101, FIG. 1) includes the use of TCP/IP |
| 29, 50 | <p>Voice portal hosting system, intended to be connected to a <u>first voice telecommunication network</u> in order for a plurality of users in said network to establish a connection with said system using a voice equipment,</p> <p>said system comprising a memory in which a plurality of interactive voice response applications have been independently uploaded through a <u>second telecommunication network</u> by a plurality of independent value-added service providers,</p> <p>wherein at least a plurality of said interactive voice response applications uses a <u>common speech recognition module</u> run on said system,</p> <p>wherein said common speech recognition module comprises a <u>common user profile database</u> including</p> | <p>Voice web gateway (elem. 105, FIG. 1) connected to telephone network (elems. 111, 109, FIG. 1)</p> <p>Voice web pages (interactive voice response application), (elem. 103, FIG. 1) which inherently are stored in the memory of voice web browser (105, FIG. 1) are uploaded through the second network (Internet - elem. 101, FIG. 1) by other web sites (elem. 102, FIG. 1)</p> <p>System performs speech recognition (Col. 3, lines 42-45) through voice telecommunication interface (elem. 114, FIG. 1)</p> <p>User profile database (elem. 216, FIG. C). Attributes and Preferences are stored for each user's profile</p> |

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|----------------------------------|--|--|
| | <p>user preferences,</p> <p>wherein said common speech recognition module further uses <u>common user-specific speech models</u>,</p> <p>wherein said system further comprises means for <u>adapting said common speech models</u> associated to a user during each dialogue between said user and each of said interactive voice response applications.</p> | <p>are stored for each user's profile (elem. 308, FIG. 3 and Col. 2, lines 47-57)</p> <p>Speech recognition is user-specific (Col. 17, lines 16-17). Inherently, speech models are also user-specific.</p> <p>Speech profile page (307, FIG. 3) allows user to train the system (FIG. 4 and Col. 13, lines 10-15) for each service. Therefore, the models are adopted to appropriate context (Col. 17, lines 39-41).</p> |
| 51 (30-33, 38-39, 42, 47 and 50) | Computer program product directly loadable into the internal memory of a digital computer, comprising software code portions for performing the steps of one of the claims 30-33, 38-39, 42, 47 and 50 when said product is run on a server connected to a first telecommunication network. | The U.S. patent of Uppaluru teach computer-based apparatus (system) and hence the computer code necessary to implement this system are inherently part of his teachings. |

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5, 8, 19, 27-28, 34, 43 and 51(34 and 43) are rejected under 35 U.S.C. 103(a) as being unpatentable over Uppaluru.

As per claims 5 and 34, Uppaluru does not disclose preferences that "include a billing address and/or preferences for goods and services ordered with said value-added service providers."

However, Uppaluru discloses the system that stores user's address as part of the preferences (Col.2, line 50).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Uppaluru to also store billing address among user's preferences, as it would allow the user to shop online using a credit card assigned to an address different from the user's home address. This is a well-known practice among on-line merchants (Amazon.com, Buy.com, etc)

As per claim 8, Uppaluru does not disclose adapting common speech models "using recorded users' speech samples for adapting said common speech models off-line."

However, Uppaluru discloses training speech models using HMMs (Col. 17, lines 24-26). The examiner takes official notice that it is well-known in the art that adaptation of HMMs is a computationally expensive procedure and thus should not be performed by services requiring quick response times, such as interactive web pages.

Therefore, it would have been obvious to one of ordinary skill in the art to modify Uppaluru to adopt speech models off-line using dedicated computer resources, as it would take off the load from the on-line web-services and improve user experience by reducing the page response times.

As per claims 19, 43, Uppaluru does not disclose that a "speech recognition module uses a speaker-dependant speech recognition algorithm, wherein said speaker is identified by said common user identification module."

However, Uppaluru does disclose the system that uses voice-authentication signature (Col. 16, lines 29-32 and elem. 611, FIG. 6) for speaker identification.

It would have been obvious to one of ordinary skill in the art to modify Uppaluru to use the speech recognition agent for voice-authentication, since voice authentication and speech recognition processes share many analogous voice-processing functionalities, and thus could be easily combined within the same system module (recognition/authentication) for design simplicity.

As per claims 27-28, Uppaluru does not disclose that at least one free interactive voice response application, such as free directory assistance, is made available by the operator of said system.

However, Uppaluru discloses providing a list of system subscribers (Col. 6, lines 3-6), as well as listings of White and Yellow pages (elems. 1002, 1007, FIG. 10)

It would have been obvious to one of ordinary skill in the art that to modify Uppaluru to provide such listings (especially White and Yellow pages) for free because these listing are normally provided for free by the regular telephone companies and while regular consumers would not be willing to pay for such services, the businesses would participate in such listing for advertising purposes.

As per claims 51(34 and 43), the U.S. patent of Uppaluru teach computer-based apparatus (system) and hence the methods and computer code necessary to implement this system are inherently part of Uppaluru's teachings. Therefore, claims 51/34 and 51/43 are rejected on the same basis as claims 34 and 43 (see rejections above).

5. Claims 16-17, 40-41 and 51(40-41) are rejected under 35 U.S.C. 103(a) as being unpatentable over Uppaluru in view of Woods et al. (6,510,417)

Uppaluru discloses user-authentication (elem. 306, FIG. 3 and Col. 15, lines 41-47)

Uppaluru does not disclose "user identification module using an identification of the equipment used by said user in said first telecommunication network."

Woods et al. disclose using caller-id to identify users to a voice portal. (Col.24, lines 39-41). The examiner takes official notice that it is also well-known in the art that while the caller can block caller-identification services used by the general public, the caller's number still remains accessible to the direct phone provider and certain agencies, such as police.

It would have been obvious to one of ordinary skill in the art to modify Uppaluru as taught by Woods et al. to allow the system to automatically authenticate users based on their phone numbers by using caller-id procedures, as it would significantly reduce the amount of login time and improve the usability of the authentication process. In addition, it would have been obvious to one of ordinary skill in the art that the service

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providers could bypass regular caller-id blocking which protects the callers from being identified by other regular phone customers.

As per claims 51(40-41), the U.S. patent of Uppaluru teach computer-based apparatus (system) and hence the methods and computer code necessary to implement this system are inherently part of Uppaluru's teachings. Therefore, claims 51/40-41 are rejected on the same basis as claims 40 and 41 (see rejections above).

6. Claims 20-22, 44-46, 51(44-46) are rejected under 35 U.S.C. 103(a) as being unpatentable over Uppaluru in view of Nikander (6,029,151)

Uppaluru does not disclose:

- a system wherein interactive voice response applications use a common billing module and a common clearing center for dispatching the collected amounts to value-added service providers (claim 20)
- while using a common bill and (claim 21)
- where users have deposit accounts which can be used for transactions with the service providers. (claim 22)

Nikander discloses a common bill-pay system that

- contains a common billing module which allows service provider to charge consumer for various services (Col. 4, line 30-37)
- on a single telephone bill (Col. 4, line 30-37)

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- while paying to service providers using “electronic money” (Col. 4, lines 37-41) which are removed from local user’s account (elem. 124, FIG. 8)

It would have been obvious to one of ordinary skill in the art to modify Uppaluru as taught by Nikander in order to improve the usability of the service billing system, as Nikander’s billing method would allow customers to enjoy the benefits of having to pay a single, unified bill from a common “wallet” account for the services purchased from the multiple service providers in Uppaluru’s system.

As per claims 51(44-46), the U.S. patent of Uppaluru teach computer-based apparatus (system) and hence the methods and computer code necessary to implement this system are inherently part of Uppaluru’s teachings. Therefore, claims 51/44-46 are rejected on the same basis as claims 44-46 (see rejections above).

7. Claims 25-26, 48-49, 51(48-49) are rejected under 35 U.S.C. 103(a) as being unpatentable over Uppaluru in view of Brown et al. (6,604,075)

Uppaluru discloses the use of Hypertext Voice Markup Language (Col. 5, lines 46-48), which is an standard similar to industry-standardized Voice extensible Markup Language (VoiceXML) and is used for creating interactive voice response web pages.

Uppaluru does not directly disclose “voice response applications described with (VoiceXML) documents” and also compiling said voice-response applications.

Brown et al. disclose web-based dialog interface which can use VoiceXML (Col.3, line 65) and contains a compilation module for the interface (106, FIG. 1)

It would have been obvious to one of ordinary skill in the art to modify Uppaluru as taught by Brown et al. to create interactive voice applications in VoiceXML because writing applications using an industry-recognized standard would improve the tasks of future code maintenance, reduce development efforts, as well as insure backwards compatibility with the older versions of the applications.

As per claims 51(48-49), the U.S. patent of Uppaluru teach computer-based apparatus (system) and hence the methods and computer code necessary to implement this system are inherently part of Uppaluru's teachings. Therefore, claims 51/48-49 are rejected on the same basis as claims 48-49 (see rejections above).

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Zirngibl et al. (6,606,596) teach voice-based web system

Bryan et al. (6,658,414) teach user-definable interactive voice portals

Saylor et al. (6,707,889) teach a system incorporating a large voice portal provider.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dmitry Brant whose telephone number is (703) 305-8954. The examiner can normally be reached on Mon. - Fri. (8:30am - 5pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Talivaldis Ivars Smits can be reached on (703) 306-3011. The fax phone

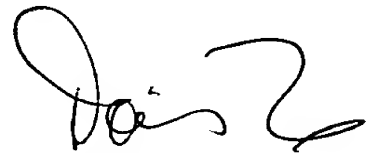
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number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to Tech Center 2600 receptionist whose telephone number is (703) 305- 4700.

DB

4/14/04

A handwritten signature in black ink, appearing to read 'Doris H. To', with a stylized flourish at the end.

**DORIS H. TO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600**